E. Circular Motion and Rotation

1. Uniform Circular Motion

* Vectors to show that acceleration is towards the center – show that the acceleration is due to the change of direction
* Give them equation
* Work problems
* Rollercoasters (realize that centripetal > g to keep you in)
  + Potential RC project
  + K’Nex demo?
  + Gravitron example
  + PhET demo
  + Explorer Learning Gizmo

2. Torque and Rotational Statistics

* Small discussion on what torque means with levers and pulleys – what would work to open a locker and why? Engine lifts (old school pulley version)
* Turn discussion into a workable example
* Allow students to work on problems
* Provide feedback
* Demo: Use levers in class/move fulcrum to move various masses (ideally a quick activity)